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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,069	02/05/2004	Emrys Williams	5681-74900	6049

35690 7590 04/19/2007  
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.  
P.O. BOX 398  
AUSTIN, TX 78767-0398

EXAMINER
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MORAN, RANDAL D

ART UNIT	PAPER NUMBER
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2135

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/773,069

Applicant(s)

WILLIAMS, EMRYS

Examiner

Randal D. Moran

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/3/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The IDS filed on 1/3/2005 has been considered by the examiner,
2. Claims 1-54 are pending in this application.
3. Below, Examiner has pointed out particular references contained in the prior art(s) of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claims, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully each reference in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

***Claim Rejections - 35 USC § 101***

- 1 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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2      **Claim 35** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, as they do not fall under any of the statutory classes of inventions. Means for is not directed to a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof and is therefore not statutory subject matter.

3      **Claims 38-54** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, as they do not fall under any of the statutory classes of inventions. The language in the specification ([0040]) raise an issue because the claims are directed merely to a "transmission medium, such as a signal over a wired or wireless network" that is not tied to an article of manufacture which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

***Claim Rejections - 35 USC § 102***

1.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.      **Claims 1-6, 8, 11, 14-17, 18-23, 25, 28, 31-43, 45, 48, and 51-54** are rejected under 35 U.S.C. 102(b) as being anticipated by **Funk (US 5,721,779)**.

3. Considering **Claims 1, 18, 35-38**, Funk discloses an authorization system for using a pass code to validate a user (abstract, column 8- lines 9-11), comprising: a random number generator operable to generate a challenge (Fig. 2- item 14, column 8- lines 14-25); an output device operable to provide the challenge to a user (Fig. 2- item 18, column 8- lines 28-29); an input device operable to receive a response to the challenge from the user (Fig. 2- item 48, column 8- lines 30-32), wherein said response represents a transformation from the challenge to the pass code allocated to the user (column 8- lines 32-34); and a validation unit for authorizing the user on the basis of said response against a stored version of the pass code (Fig. 2- item 24, column 8- lines 39-44).
4. Considering **Claims 2, 19, and 39**, Funk discloses challenge is independent of said pass code (column 9- lines 22-27).
5. Considering **Claims 3, 20, and 40**, Funk discloses generating a new challenge for each user validation (column 3- lines 23-28).
6. Considering **Claims 4, 21, and 42**, Funk discloses challenge is generated on a random basis (column 3- lines 23-28).

7. Considering **Claims 5, 22, and 41**, Funk discloses challenge is generated in response to receiving a request from a user for validation (Fig. 3A- item 202, column 8- lines 9-12).
8. Considering **Claims 6, 23, and 43**, Funk discloses providing a user with a challenge comprises displaying the challenge to the user (Fig. 2- item 52, Fig. 3A- item 208, column 8- lines 9-11 and 30-34).
9. Considering **Claims 8, 25, and 45**, Funk discloses the response from the user is received as a set of one or more modifications to be applied to the challenge so that it matches the pass code allocated to the user (column 4- lines 48-65).
10. Considering **Claims 11, 28, and 48**, Funk discloses challenge has the same number of characters as the pass code allocated to the user (column 4- lines 26-48, column 5- lines 4-14).
11. Considering **Claims 14, 31, and 51**, Funk discloses receiving an indication from the user that the response has been completely entered (column 8- lines 32-36).
12. Considering **Claims 15, 32, and 52**, Funk discloses generating an entered pass code from the challenge and from the response from the user (column 5- lines 4-33).

13. Considering **Claims 16, 33, and 53**, Funk discloses the response is validated by comparing the entered pass code with the stored data record of the pass code (column 5- lines 34-40).
14. Considering **Claims 17, 34, and 54**, Funk discloses receiving a communications challenge from an authorization unit that has access to said stored data record of the pass code (Fig. 2- item 40, column 8- lines 14-18); using the response to encrypt said communications challenge (column 4- lines 50-52); and transmitting the encrypted communications challenge to the authorization unit (column 4- lines 66-67), thereby allowing the response input by the user to be validated by said authorization unit against said stored data record of the pass code (column 4- line 67, column 5- lines 34-40).

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 7, 24, and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Funk** in view of **Hirsch (US 4, 479, 112)**.

3. Considering **Claims 7, 24, and 44**, Funk is silent on the challenge is displayed to the user in such a manner as to prevent third parties from viewing the challenge.

Hirsch discloses the challenge is displayed to the user in such a manner as to prevent third parties from viewing the challenge (column 16, lines 62-68, column 17- lines 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Funk by the ability to display the challenge in a way that prevents third party viewing as taught by Hirsch in order to provide data entry without fear of the data being compromised in the presence of a bystander (Hirsch- column 2- lines 16-17).

4. **Claims 9, 10, 26, 27, 46, and 47** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Funk** in view of **Kelly (US 5,475,757)**.

5. Considering **Claims 9, 26, and 46**, Funk is silent on the set of one or more modifications is received as directional input from the user.



Kelly discloses the set of one or more modifications is received as directional input from the user (Fig. 2- item 26.1 and item 27.1, column 8- lines 66-67, column 9- lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Funk by the ability to receive modifications as directional input from the user as taught by Kelly in order to allow the user manually select the data string (Kelly- column 8- lines 66-67, column 9- lines 1-5).

6. Considering **Claims 10, 27, and 47**, the combination of Funk and Kelly discloses directional input is received as the result of the user pressing one or more arrow keys that increment or decrement the challenge by a fixed amount (Kelly- Fig. 2- item 26.1 and item 27.1, column 8- lines 66-67, column 9- lines 1-5).
7. **Claims 12, 13, 29, 30, 49, and 50** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Funk**.
8. Considering **Claims 12, 29, and 40**, Funk is silent on said transformation is specified individually for each character of the challenge. Funk does disclose that the client can generate this response signal by employing the same one-way commutative function to encrypt the challenge signal, C, with one valid password

(column 4- lines 51-53). Therefore it would have been obvious to transform the character string individually for each character of the challenge.

9. Considering **Claims 13, 30, and 50**, Funk discloses receiving an indication from the user that the transformation for a different character is about to be entered. It is inherent in this system that a user would specify when they are entering a transformation for the next character.

### ***Conclusion***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 6549912 – Loyalty file structure for a smart card.
- US 5475756 – Authenticating a terminal in a transaction.
- US 5557676 – Authentication for analog communication systems.
- US 5666415 – Cryptographic authentication.
- US 6026293 – Preventing electronic memory tampering.
- US 6088450 – Periodic Challenge Response.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randal D. Moran whose telephone number is 571-270-1255. The examiner can normally be reached on M-F: 7:00 - 4:00.

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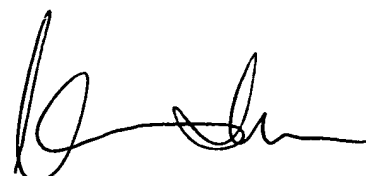
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Randal D. Moran

RDm

4/16/07



KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100